Listing and Amendments to the Claims

This listing of claims will replace the claims that were published in the PCT Application:

1. (currently amended) A method for controlling a pick-up for reading three or more data streams from a storage medium, the data streams being used for simultaneous reproduction and belonging to different data types with different constant or variable data rates, and the data streams being distributed to more than one file on said storage medium and being separately buffered after reading, wherein the pick-up data rate ~~(R_D)~~ is higher than any of the buffer output data rates ~~(R_V,R_A,R_S)~~, with the amount of buffered data relating to any of said data streams being at least such that subsequent processing can be provided with the buffered data during the time required for accessing and reading the other data streams of the other data types, the method comprising:
   - buffering ~~(B_{video})~~ a first data stream of a first data type, the data stream having the highest buffer output data rate of all said three or more buffered data streams, wherein said first data stream is read and buffered periodically in periods of a first period time ~~(T)~~; and
   - accessing the data streams by the pick-up according to a predefined temporal scheme, the scheme being such that, after an initialization, for any three successive data stream accesses, wherein the second access reads another than said first data stream, the first and last accesses read said first data stream, and wherein the data streams other than said first data stream are accessed and buffered in a constant predetermined order in periods of integer multiples of said first period time ~~(n T, k n T)~~.

2. (original) Method according to claim 1, wherein the pick-up is an optical pick-up and the data streams comprise a video data stream, an audio data stream and a subtitle data stream.

3. (currently amended) Method according to claim 1 ~~or 2~~, wherein said periods for reading the other buffers are individual for each buffer, such that the period for reading of a data stream from the storage medium is the shorter, the higher the buffer output data rate of the data stream is.

4. (currently amended) Method according to ~~any of the previous claims~~ claim 1, wherein the periods ~~(n T, k n T)~~ relating to accessing and buffering the other data streams than said first data stream are integer ~~(k)~~ multiples of each other.

5. (currently amended) Method according to ~~any of the previous claims~~ claim 1, wherein n is at least two and k is one or more.

6. (currently amended) Method according to ~~any of the previous claims~~ claim 1, wherein an interrupt request may interrupt the scheme, and after serving the interrupt request the same scheme as before is continued, wherein said continuing of the same scheme is achieved by loading one or more buffers only partially, to the level the buffer or buffers would have in the scheme at that time ~~($T_{d,a}$, $T_{d,v}$)~~ if the scheme had been continued without interruption.

7. (currently amended) Method according to ~~any of the previous claims~~ claim 1, wherein the start-up procedure comprises buffering an individual initial amount of data from each data stream, wherein the initial amount of buffered data is sufficient for each of the respective decoders to start working, and wherein the initial amount of buffered data corresponds to a position ~~(S^*)~~ within the scheme where the amount of buffered data of the lower rated streams is minimal.

8. (currently amended) Method according to ~~any of the previous claims~~ claim 1, wherein additional data from other streams than said first data stream are buffered ~~(B_{audio}, B_{sub})~~, the additionally buffered data leading to an additional time ~~(t_d)~~ during which these additional data are output from the buffer, the additional buffer output time ~~(t_d)~~ being shorter than said period ~~(T)~~.

9. (currently amended) Method according to ~~any of the previous claims~~ claim 1, wherein additional data from said first data stream is buffered ~~(B_{video})~~, the additionally buffered data leading to an additional time ~~(T_j+T_{GOP})~~ during which these additional data are output from the buffer, the additional time ~~(T_j+T_{GOP})~~ being shorter than said period ~~(T)~~, wherein T_j corresponds to the period when the scheduler interrupts the pick-up reading of a current video stream and moves to another stream that contains the video data for a requested angle, and T_{GOP} corresponds to a duration of a data unit that is sufficient for decoding.

10. (currently amended) Apparatus for reading three or more data streams for simultaneous reproduction from a storage medium, the data streams belonging to different data types with different constant or variable data rates, and the data streams being distributed to more than one file on said storage medium and being separately buffered after reading, wherein the pick-up data rate ~~(R_D)~~ is higher than any of the buffer output data rates ~~(R_V;R_A;R_S)~~, with the amount of buffered data relating to any of said data streams being at least such that subsequent processing can be provided with the buffered data during the time required for accessing and reading the other data streams of the other data types, the apparatus comprising:
   - means for buffering ~~(B_{video})~~ a first data stream of a first data type, the data stream having the highest buffer output data rate of all said buffered data streams, wherein said first data stream is read and buffered periodically in periods of a first period time ~~(T)~~; and
   - means for controlling a pick-up for reading the data streams, wherein the pick-up accesses the data streams according to a predefined temporal scheme, the scheme being such that, after an initialization, for any three successively read data streams, wherein the second access reads another than said first data stream, the first and last accesses read said first data stream, and wherein the data streams other than said first data stream are accessed and buffered in a constant predetermined order in periods of integer multiples of said first period time ~~(n·T, k·n·T)~~.